What is claimed is:

1. A method of forming a reinforced polymer film structure comprising the steps of:

slitting a biaxially oriented polymer film web having a top face and a bottom face into a first portion and a second portion;

identifying said first portion and said second portion;

placing said first portion atop said second portion, such that said bottom face of said first portion is adjacent said top face of said second portion.

2. The method of claim 1, wherein said slitting step and said placing step occur in a continuous in-line process.

3. The method of claim 1, wherein said first portion and said second portion are of substantially equal width.

4. The method of claim 1, wherein a third portion is intermediate said first portion and said second portion in said polymer film web.

5. The method of claim 1, wherein said first portion and said second portion are taken from edge portions of said polymer film web.

6. A method of forming a polymer film structure comprising:

identifying a molecular orientation direction profile of two portions of biaxially oriented polymer film;

layering said two portions such that a molecular orientation direction profile of one does not coincide with a molecular orientation direction profile of the other.

7. The method of claim 6, wherein said molecular orientation direction profile is identified by identifying an attribute of said portions selected from the group

consisting of a top face, a bottom face, a first formed edge, a second formed edge, a first slit edge, a second slit edge, an optical bow or combinations thereof.

8. The method of claim 7, wherein said attribute is identified by rolling said film.

9. The method of claim 7, wherein said attribute is identified by a label.

10. A method of producing slit polymer film comprising the steps of:
orienting said film biaxially;
slitting said film into at least two portions;
rolling at least one of said portions into a roll;
identifying from where in said film said roll was taken.

11. A method of forming a polymer film composite from slit film lengths, comprising the step of:
inspecting a first slit film length to determine its optical bow;
identifying a second slit film length having an optical bow that differs from said optical bow of said first slit film length;
forming a composite from said first slit film length and said second film length.

12. A method of forming a polymer film composite from slit film lengths, comprising the steps of:
inspecting a first film length to determine its optical bow;
identifying a second slit film length having a substantially similar optical bow to said first slit film length;
inverting one of said slit film lengths;
forming a composite of said film lengths.

13. The method of claim 12, wherein said second slit film length is cut from a slit film length containing said first slit film length.

14. A polymer film structure comprising:

a first layer of biaxially oriented polymer film having a first molecular orientation direction profile;

a second layer of biaxially oriented polymer film adjacent said first layer, wherein said second layer has a second molecular orientation direction profile that is not substantially the same as said first molecular orientation direction profile.

15. The polymer film structure of claim 14, wherein said layers are slit layers.

16. The polymer film structure of claim 15, wherein said layers are slit from a single full cast sheet.

17. The polymer film structure of claim 16, wherein said single full cast sheet is slit approximately down its center.

18. The polymer film structure of claim 14, wherein at least one of said layers includes polyester.

19. The polymer film structure of claim 14, wherein only two layers are used.

20. A composite structure comprising said film structure of claim 14 and glass.

21. The composite structure of claim 20, further comprising an adhesive layer intermediate said film structure and said glass.

22. The film structure of claim 14, wherein said film structure is substantially transparent.

23. A polymer film composite comprising a first slit film layer and a second slit film layer, wherein a $\Delta\theta$ between said first layer and said second layer is about 40 to 90°.

24. The polymer film composite of claim 23, wherein said $\Delta\theta$ is about 40 to about 60°.

25. A method of forming a polymer film web comprising:

forming a cast sheet;

biaxially orienting said cast sheet and forming an optical bow therein;

during such orienting step, increasing an extinction angle of said optical bow at an edge of said cast sheet.

26. The method of claim 25, wherein said orienting step employs a machine direction draw ratio of about 2.8 to about 3.4.

27. The method of claim 25, wherein said biaxial orienting step employs a machine direction draw ratio of about 3.1 to about 3.4.

28. The method of claim 25, wherein a machine direction draw ratio is increased above standard operating conditions.

29. The method of claim 25, wherein a transverse direction draw temperature is increased above standard operating conditions.

30. The method of claim 29, wherein said transverse direction draw temperature is about 95 to about 110 degrees Celsius.

31. A method of forming a polymer film web comprising:

forming a cast sheet;

biaxially orienting said cast sheet and forming an optical bow therein;

during said orienting step, rendering an extinction angle of said optical bow more negatively concave.